



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/692,869	10/20/2000	William T. McHugh	08935-218001 / M-4926	6097
26161	7590	05/18/2005	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			MARTIN, ANGELA J	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 05/18/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/692,869

Applicant(s)

MCHUGH ET AL.

Examiner

Angela J. Martin

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-13,15,18 and 21-44 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-5,7-13,15,18 and 21-44 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is responsive to the Amendment filed on February 24, 2005. The Applicant has amended claims 1, 8, 9, 15, 18, 27, 30, 33, 36, 37, 43. The Applicant has overcome the 35 USC 112 Rejection and has overcome the double patenting rejection by filing a Terminal Disclaimer. Pending claims are 1-5, 7-13, 15, 18, and 21-44. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, this action is made final.

### ***Drawings***

1. The drawings were received on February 14, 2000. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3, 5, 10, 11 rejected under 35 U.S.C. 102(b) as being anticipated by Daniel-Ivad et al., U.S. Pat. No. 5,626,988.

Rejection 1, 3, 5, 10, 11 drawn to a battery system.

Daniel-Ivad et al., teach a battery system comprising a casing, and a battery comprising a can having longitudinal axis, a length that is parallel to the axis, and a cross section relative to the axis that is rectangular for substantially the entire length of

Art Unit: 1745

the can (col. 7, lines 30-34; Fig. 1), the can having a closed end and open end, a cathode, an anode, a separator, and a seal assembly attached to the open end of the can, wherein the assembly comprises a seal and a current collector attached to the seal (col. 5, lines 40-60). It teaches the cathode comprises manganese oxide (col. 8, lines 28-41). It teaches the anode comprises zinc (col. 7, lines 30-47). It teaches a barrier layer between the cathode and can, which is polytetrafluoroethylene (col. 8, lines 28-40).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4, 5, 7, 10-13, 27-29, 31-35, 37-42, 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shrim et al., U.S. Pat. No. 6,517,967 B1.

Rejection of claims 1, 2, 4, 5, 7, 10-13, 27-29, 31-35, 37-42, 44 drawn to a battery.

Shrim et al., teach a battery system comprising a casing, and a battery comprising a can having longitudinal axis, a length that is parallel to the axis, and a cross section relative to the axis that is rectangular for substantially the entire length of the can (Fig. 1), the can having a closed end and open end, a cathode, an anode, a separator. It teaches the can comprises air access opening (col. 13, lines 48-59). It

Art Unit: 1745

teaches the cathode has a rectangular cross section (Fig. 1). It teaches the anode comprises zinc (col. 2, lines 49-50). It teaches a metal-air battery (col. 18, lines 7-10). It teaches a barrier layer between the cathode and can, which is polytetrafluoroethylene (col. 31, lines 47-54). It teaches the cathode and can define an air plenum (Fig. 1). It teaches a battery system comprising a casing to be used with an electronic device (col. 1, lines 51-65). It teaches the can has a rectangular cross section (Fig. 1); it teaches the can has a square cross section (Fig. 1) (a square is a rectangle with all four sides equal). Additionally, it teaches the wall having an air access opening (col. 13, lines 48-59); it teaches the can is electrically conductive (col. 2, lines 51-67).

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because although it does not disclose a seal assembly attached to the open end of the can, wherein the assembly comprises a seal and a current collector attached to the seal; the battery must have a closed end in order to contain the battery parts and the battery must have a collector in order to transmit the current from the battery to the device.

6. Claims 21, 22, 24-26, 30, 36, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shrim et al., U.S. Pat. No. 6,517,967 B1, in view of Tuttle, U.S. Pat. No. 5,725,967.

Rejection of claims 21, 22, 24-25, 30, 36, 43; claim 26 drawn to method of making a battery.

Shrim et al., teach a battery and a method of making a battery as described above.

Art Unit: 1745

Shrim et al., do not teach a battery can having a triangular cross section.

Tuttle teaches a battery can having a triangular cross section (col. 2, lines 55-60).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Tuttle into the teachings of Shrim et al., because a triangular battery can would be more structurally fit for certain electrical devices.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel-Ivad et al., U.S. Pat. No. 5,626,988, in view of Tuttle, U.S. Pat. No. 5,725,967.

Rejection of claim 23 drawn to a battery.

Daniel-Ivad et al., teach a battery as described above.

Daniel-Ivad et al., do not teach a battery can having a triangular cross section.

Tuttle teaches a battery can having a triangular cross section (col. 2, lines 55-60).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to insert the teachings of Tuttle into the teachings of Daniel-Ivad et al., because a triangular battery can would be more structurally fit for certain electrical devices.

***Allowable Subject Matter***

8. Claims 8, 9, 15, 18 are allowed.

9. The terminal disclaimer filed on February 24, 2005 has been recorded.

***Conclusion***

**10.** The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mank, U.S. Pat. No. 6,309,775 B1 teaches a sealed prismatic electrochemical cell.

**11.** Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
AJM

**GREGG CANTELMO  
PRIMARY EXAMINER**

